INDEX TO AUTHORS

ALLING, E. L. See ROBSCHEIT-ROBBINS, MILLER, ALLING, and WHIPPLE, 355

AVERY, OSWALD T. See MCCARTY and AVERY, 89, 97

BENDICH, AARON, KABAT, ELVIN A., and BEZER, ADA E. Immunochemical studies on blood groups. III. Properties of purified blood group A substances from individual hog stomach linings, 485

—. See KABAT, BENDICH, and BEZER, 477

BEZER, ADA E. See BENDICH, KABAT, and BEZER, 485

—. See KABAT, BENDICH, and BEZER, 477

BOYD, WILLIAM C. The effect of high pressures on hemagglutinating antibodies, 401

—. Effect of photo-oxidation on isohemagglutinating antibodies, 221

BRAND, ERWIN. See BENDICH, KABAT, and BEZER, 485

BURROUGHS, ROSEMARY. See HAMMON and REEVES, 163

—. See HAMMON, REEVES, and IZUMI, 175

CLAUDE, ALBERT, and FULLAM, ERNEST F. The preparation of sections of guinea pig liver for electron microscopy, 499

CURNEN, EDWARD C., and HORSFALL, FRANK L., JR. Studies on pneumonia virus of mice (PVM). III. Hemagglutination by the virus; the occurrence of combination between the virus and a tissue substance, 105

—. See HORSFALL and CURNEN, 25, 43

DAVIS, BERNARD D. See DUBOS and DAVIS, 409

DUBOS, RENÉ J., and DAVIS, BERNARD D. Factors affecting the growth of tubercle bacilli in liquid media, 409

EHRICH, W. E., HARRIS, T. N., and MERTENS, E. The absence of antibody in the macrophages during maximum antibody formation, 373

ESPANA, CARLOS. See REEVES and HAMMON, 185

FABER, HAROLD K., and SILVERBERG, ROSALIE J. A neuropathological study of acute human poliomyelitis with special reference to the initial lesion and to various potential portals of entry, 329

FLORIO, LLOYD, HAMMON, WILLIAM MCD., LAURENT, ANGELA, and STEWART, MABEL O. Colorado tick fever and dengue. An experimental immunological and clinical comparison, 295

—, STEWART, MABEL O., and MUGRAGE, EDWARD R. The etiology of Colorado tick fever, 1

FULLAM, ERNEST F. See CLAUDE and FULLAM, 499

GOLDBLATT, HARRY. See GYÖRGY, SEIFTER, TOMARELLI, and GOLDBLATT, 449

GYÖRGY, PAUL, SEIFTER, JOSEPH, TOMARELLI, RUDOLPH M., and GOLDBLATT, HARRY. Influence of dietary factors and sex on the toxicity of carbon tetrachloride in rats, 449

HAMMON, WILLIAM McD., and REEVES, W. C. Western equine encephalomyelitis virus in the blood of experimentally inoculated chickens, 163
—, —, and IZUMI, E. M. St. Louis encephalitis virus in the blood of experimentally inoculated fowls and mammals, 175
—. See FLORIO, HAMMON, LAURENT, and STEWART, 295
—. See REEVES and HAMMON, 185
HARFORD, CARL G., SMITH, MARY RUTH, and WOOD, W. BARRY, JR. Sulfonamide chemotherapy of combined infection with influenza virus and bacteria, 505
HARRIS, T. N. See EHRICH, HARRIS, and MERTENS, 373
HAVENS, W. PAUL, JR. Period of infectivity of patients with experimentally induced infectious hepatitis, 251
—. Period of infectivity of patients with homologous serum jaundice and routes of infection in this disease, 441
HEHRE, EDWARD J., and NEILL, JAMES M. Formation of serologically reactive dextrans by streptococci from subacute bacterial endocarditis, 147
HEIDELBERGER, MICHAEL, MACLEOD, COLIN M., KAISER, SAMUEL J., and ROBINSON, BETTY. Antibody formation in volunteers following injection of pneumococci or their type-specific polysaccharides, 303
HENLE, GERTRUDE. See WIENER, HENLE, and HENLE, 259
HENLE, WERNER. See WIENER, HENLE, and HENLE, 259
HORSFALL, FRANK L., JR., and CURNEN, EDWARD C. Studies on pneumonia virus of mice (PVM). I. The precision of measurements *in vivo* of the virus and antibodies against it, 25
HORSFALL, FRANK L., JR., and CURNEN, EDWARD C. Studies on pneumonia virus of mice (PVM). II. Immunological evidence of latent infection with the virus in numerous mammalian species, 43
—. See CURNEN and HORSFALL, 105

IZUMI, E. M. See HAMMON, REEVES, and IZUMI, 175

JACKSON, ELIZABETH B. See SMADEL, RIGHTS, and JACKSON, 133

KABAT, ELVIN A., BENDICH, AARON, and BEZER, ADA E. Immunochemical studies on blood groups. II. Properties of the blood group A substance from pools of hog stomachs and of specific precipitates composed of "A" substance and homologous human antibody, 477
—. See BENDICH, KABAT, and BEZER, 485
KAISER, SAMUEL J. See HEIDELBERGER, MACLEOD, KAISER, and ROBINSON, 303
KIDD, JOHN G. Suppression of growth of Brown-Pearce tumor cells by a specific antibody. With a consideration of the nature of the reacting cell constituent, 227
KNIGHT, C. A. Precipitin reactions of highly purified influenza viruses and related materials, 281
—. The preparation of highly purified PR8 influenza virus from infected mouse lungs, 11
KOPROWSKI, HILARY. See LENNETTE and KOPROWSKI, 195

LAURENT, ANGELA. See FLORIO, HAMMON, LAURENT, and STEWART, 295
—. See HAMMON and REEVES, 163

LAURENT, ANGELA. See HAMMON, REEVES, and IZUMI, 175
LENNETTE, EDWIN H., and KOPROWSKI, HILARY. Interference between viruses in tissue culture, 195

MACLEOD, COLIN M. See HEIDELBERGER, MACLEOD, KAISER, and ROBINSON, 303
MCCARTY, MACLYN, and AVERY, OSWALD T. Studies on the chemical nature of the substance inducing transformation of pneumococcal types. II. Effect of desoxyribonuclease on the biological activity of the transforming substance, 89
—and—. III. An improved method for the isolation of the transforming substance and its application to Pneumococcus Types II, III, and VI, 97
MERTENS, E. See EHRICH, HARRIS, and MERTENS, 373
MILLER, L. L. See ROBSCHEIT-ROBBINS, MILLER, ALLING, and WHIPPLE, 355
—. See ROBSCHEIT-ROBBINS, MILLER, and WHIPPLE, 463
MUGRAGE, EDWARD R. See FLORIO, STEWART, and MUGRAGE, 1

NEILL, JAMES M. See HEHRE and NEILL, 147

PAGE, ERNEST W. See SAPIRSTEIN, REED, and PAGE, 425

REED, RACHEAL K. See SAPIRSTEIN, REED, and PAGE, 425
REEVES, W. C., and HAMMON, WILLIAM MCD. Laboratory transmission of Japanese B encephalitis virus by seven species (three genera) of North American mosquitoes, 185
—. See HAMMON and REEVES, 163
—. See HAMMON, REEVES, and IZUMI, 175
RIGHTS, FRED L. See SMADEL, RIGHTS, and JACKSON, 133
ROBINSON, BETTY. See HEIDELBERGER, MACLEOD, KAISER, and ROBINSON, 303
ROBSCHEIT-ROBBINS, F. S., MILLER, L. L., ALLING, E. L., and WHIPPLE, G. H. Plasma substitutes: human and animal globin related to the production of hemoglobin and plasma protein: dog hemoglobin utilization improved by methionine but not by isoleucine, 355
—, —, and WHIPPLE, G. H. Hemoglobin and plasma protein production. Various proteins, concentrates, and digests influence blood protein production in anemia and hypoproteinemia, 463
ROUS, PEYTON. The activation of skin grafts, 383

SAIDEL, LEO J. See BENDICH, KABAT, and BEZER, 485
SAPIRSTEIN, LEO A., REED, RACHEAL K., and PAGE, ERNEST W. The site of angiotonin destruction, 425
SCHENKEIN, EDNA L. See WALTER, SCHENKEIN, and SUTLIFF, 321
SEIFTER, JOSEPH. See GYÖRGY, SEIFTER, TOMARELLI, and GOLDBLATT, 449
SHWARTZMAN, GREGORY. Studies on the nature of resistance of Gram-negative bacilli to penicillin. Antagonistic and enhancing effects of amino acids, 65
SILVERBERG, ROSALIE J. See FABER and SILVERBERG, 329
SMADEL, JOSEPH E., RIGHTS, FRED L., and JACKSON, ELIZABETH B. Studies on scrub typhus. I. Soluble antigen in tissues and body fluids of infected mice and rats, 133
SMITH, MARY RUTH. See HARFORD, SMITH, and WOOD, 505
STEWART, MABEL O. See FLORIO, HAMMON, LAURENT, and STEWART, 295

STEWART, MABEL O. See FLORIO, STEWART, and MUGRAGE, 1
SUTLIFF, WHEELAN D. See WALTER, SCHENKEIN, and SUTLIFF, 321

THORPE, ANN. See HAMMON and REEVES, 163
—. See HAMMON, REEVES, and IZUMI, 175
TOMARELLI, RUDOLPH M. See GYÖRGY, SEIFTER, TOMARELLI, and GOLDBLATT, 449

WALTER, ANNABEL W., SCHENKEIN, EDNA L., and SUTLIFF, WHEELAN D. Mouse-protective titers of sera of volunteers following injection of pneumococci or their type-specific polysaccharides, 321
WHIPPLE, G. H. See ROBSCHEIT-ROBBINS, MILLER, ALLING, and WHIPPLE, 355
—. See ROBSCHEIT-ROBBINS, MILLER, and WHIPPLE, 463
WIENER, MARIA, HENLE, WERNER, and HENLE, GERTRUDE. Studies on the complement fixation antigens of influenza viruses Types A and B, 259
WOLF, GRISELDA G. See REEVES and HAMMON, 185
WOOD, W. BARRY, JR. See HARFORD, SMITH, and WOOD, 505

INDEX TO SUBJECTS

ACIDS, amino, antagonistic and enhancing effects on resistance of Gram-negative bacilli to penicillin, 65
Amino acids, antagonistic and enhancing effects on resistance of Gram-negative bacilli to penicillin, 65
Anemia and hypoproteinemia, influence of proteins, concentrates, and digests on blood protein production, 463
Angiotonin destruction, site, 425
Antibodies, hemagglutinating, effect of high pressures, 401
—, isohemagglutinating, effect of photo-oxidation, 221
—, pneumonia virus of mice, and precision of *in vivo* measurements of virus, 25
Antibody, absence in macrophages during maximum antibody formation, 373
— formation in volunteers after injection of pneumococci or their type-specific polysaccharides, 303
—, human, homologous, properties of specific precipitates composed of blood group A substance from pools of hog stomachs and, 477
—, specific, suppressing growth of Brown-Pearce tumor cells, nature of reacting cell constituent, 227
Antigen, soluble, in tissues and body fluids in scrub typhus, 133
Antigens, complement fixation, of influenza viruses Types A and B, 259

BACILLI, Gram-negative, resistance to penicillin, antagonistic and enhancing effects of amino acids, 65
Bacillus, tubercle, factors affecting growth in liquid media, 409
Bacteria and influenza virus, combined infection, sulfonamide chemotherapy, 505
Bacterial endocarditis, subacute, formation of serologically reactive dextrans by streptococci from, 147
Biological activity of substance inducing transformation of pneumococcal types, effect of desoxyribonuclease, 89
Blood, chickens, Western equine encephalomyelitis virus in, 163
— groups, immunochemical studies, properties of blood group A substance from pools of hog stomachs and of specific precipitates composed of "A" substance and homologous human antibody, 477
— groups, immunochemical studies, properties of purified blood group A substances from individual hog stomach linings, 485
— of fowls and mammals, St. Louis encephalitis virus in, 175
— protein production in anemia and hypoproteinemia, influence of proteins, concentrates, and digests, 463
Body fluids and tissues in scrub typhus, soluble antigen in, 133
Brown-Pearce tumor cells, growth, suppression by specific antibody, nature of reacting cell constituent, 227

CARBON tetrachloride toxicity, influence of dietary factors and sex, 449
Cells, tumor, Brown-Pearce, suppression of growth by specific antibody, nature of reacting cell constituent, 227
Chemical nature of substance inducing transformation of pneumococcal types, 89, 97

Chemistry, immuno-, studies on blood groups, properties of blood group A substance from pools of hog stomachs and of specific precipitates composed of "A" substance and homologous human antibody, 477
—, immuno-, studies on blood groups, properties of purified blood group A substances from individual hog stomach linings, 485
Chemotherapy, sulfonamide, of combined infection with influenza virus and bacteria, 505
Colorado tick fever and dengue, immunological and clinical comparison, 295
— tick fever, etiology, 1
Complement fixation antigens of influenza viruses Types A and B, 259
Cultivation, tissue, interference between viruses in, 195

DENGUE and Colorado tick fever, immunological and clinical comparison, 295
Desoxyribonuclease, effect on biological activity of substance inducing transformation of pneumococcal types, 89
Dextrans, serologically reactive, formation by streptococci from subacute bacterial endocarditis, 147
Dietary factors and sex, influence on toxicity of carbon tetrachloride, 449

ELECTRON microscopy, preparation of guinea pig liver sections for, 499
Encephalitis virus, Japanese B, laboratory transmission by seven species of North American mosquitoes, 185
— virus, St. Louis, in blood of fowls and mammals, 175
Encephalomyelitis virus, equine, Western, in blood of chickens, 163
Endocarditis, bacterial, subacute, formation of serologically reactive dextrans by streptococci from, 147
Etiology of Colorado tick fever, 1

FEVER, tick. *See* Tick fever.
Fixation, complement. *See* Complement.
Fluids, body, and tissues, in scrub typhus, soluble antigen in, 133

GLOBIN, human and animal, related to production of hemoglobin and plasma protein, 355
Grafts, skin, activation, 383
Gram-negative bacilli, resistance to penicillin, antagonistic and enhancing effects of amino acids, 65

HEMAGGLUTINATING antibodies, effect of high pressures, 401
Hemagglutination by pneumonia virus of mice, and occurrence of combination between virus and tissue substance, 105
—, iso-, of antibodies, effect of photooxidation, 221
Hemoglobin and plasma protein, human and animal globin related to production, hemoglobin utilization improved by methionine, but not by isoleucine, 355
— and plasma protein production, proteins, concentrates, and digests influence blood protein production in anemia and hypoproteinemia, 463
Hepatitis, infectious, period of infectivity of patients, 251
Homologous human antibody, properties of specific precipitates composed of blood group A substance from pools of hog stomachs and, 477
— serum jaundice, period of infectivity of patients and routes of infection, 441

Horse encephalomyelitis virus, Western, in blood of chickens, 163
Hypoproteinemia and anemia, influence of proteins, concentrates, and digests on blood protein production, 463

IMMUNOCHEMICAL studies on blood groups, properties of blood group A substance from pools of hog stomachs and of specific precipitates composed of "A" substance and homologous human antibody, 477
— studies on blood groups, properties of purified blood group A substances from individual hog stomach linings, 485
Immunological and clinical comparison of Colorado tick fever and dengue, 295
— evidence of latent infection with pneumonia virus of mice in mammalian species, 43
Influenza virus and bacteria, combined infection, sulfonamide chemotherapy, 505
— virus, PR8, highly purified, preparation from infected mouse lungs, 11
— viruses, highly purified, and related materials, precipitin reactions, 281
— viruses Types A and B, complement fixation antigens, 259
Injection, pneumococci or their type-specific polysaccharides, antibody formation in volunteers after, 303
—, pneumococci or their type-specific polysaccharides, mouse-protective titers of sera of volunteers after, 321
Inoculation, fowls and mammals, St. Louis encephalitis virus in blood, 175
—, fowls, Western equine encephalomyelitis virus in blood, 163
Isohemagglutinating antibodies, effect of photo-oxidation, 221
Isoleucine, hemoglobin utilization improved by methionine, but not by, 355

JAPANESE B encephalitis virus, laboratory transmission by seven species of North American mosquitoes, 185
Jaundice, serum, homologous, period of infectivity of patients and routes of infection, 441

LEUCINE, iso-, hemoglobin utilization improved by methionine, but not by, 355
Liver sections, guinea pig, preparation for electron microscopy, 499
Lungs, infected, mouse, preparation of highly purified PR8 influenza virus from, 11

MACROPHAGES, absence of antibody in, during maximum antibody formation, 373
Mammalian species, immunological evidence of latent infection with pneumonia virus of mice, 43
Man and animal globin related to production of hemoglobin and plasma protein, 355
—, homologous antibody, properties of specific precipitates composed of blood group A substance from pools of hog stomachs and, 477
—, poliomyelitis, acute, neuropathology, initial lesion and potential portals of entry, 329
Media, liquid, factors affecting growth of tubercle bacilli in, 409
Methionine, hemoglobin utilization improved by, but not by isoleucine, 355
Microscopy, electron, preparation of guinea pig liver sections for, 499
Mosquitoes, North American, seven species, laboratory transmission of Japanese B encephalitis virus by, 185

NEUROPATHOLOGY of acute human poliomyelitis, initial lesion and potential portals of entry, 329
North American mosquitoes, seven species, laboratory transmission of Japanese B encephalitis virus by, 185
Nuclease, desoxyribo-, effect on biological activity of substance inducing transformation of pneumococcal types, 89

PATHOLOGY, neuro-, of acute human poliomyelitis, initial lesion and potential portals of entry, 329
Penicillin, antagonistic and enhancing effects of amino acids on resistance of Gram-negative bacilli to, 65
Photo-oxidation, effect on isohemagglutinating antibodies, 221
Plasma protein and hemoglobin production, proteins, concentrates, and digests influence blood protein production in anemia and hypoproteinemia, 463
— protein and hemoglobin production, relation of human and animal globin, 355
— substitutes, human and animal globin related to production of hemoglobin and plasma protein, dog hemoglobin utilization improved by methionine, but not by isoleucine, 355
Pneumococci or their type-specific polysaccharides, antibody formation in volunteers after injection, 303
— or their type-specific polysaccharides, mouse-protective titers of sera of volunteers after injection, 321
Pneumococcus types, effect of desoxyribonuclease on biological activity of substance inducing transformation, 89
— Types II, III, and VI, isolation of substance transforming pneumococcal types and application to, 97
Pneumonia virus of mice, hemagglutination by virus, and occurrence of combination between virus and tissue substance, 105
— virus of mice, immunological evidence of latent infection in mammalian species, 43
— virus of mice, precision of *in vivo* measurements and antibodies against, 25
Poliomyelitis, human, acute, neuropathology, initial lesion and potential portals of entry, 329
Polysaccharides, type-specific or pneumococci, antibody formation in volunteers after injection, 303
—, type-specific, or pneumococci, mouse-protective titers of sera of volunteers after injection, 321
Precipitates, specific, composed of blood group A substance from pools of hog stomachs and homologous human antibody, properties, 477
Precipitin reactions of highly purified influenza viruses and related materials, 281
Pressures, high, effect on hemagglutinating antibodies, 401
Protein, plasma, and hemoglobin production, proteins, concentrates, and digests influence blood protein production in anemia and hypoproteinemia, 463
—, plasma, and hemoglobin, production, relation of human and animal globin, 355

REACTIONS, precipitin, of highly purified influenza viruses and related materials, 281
Resistance of Gram-negative bacilli to penicillin, antagonistic and enhancing effects of amino acids, 65
Ribonuclease, desoxy-, effect on biological activity of substance inducing transformation of pneumococcal types, 89

ST. LOUIS encephalitis virus in blood of fowls and mammals, 175
Sera of volunteers, mouse-protective titers after injection of pneumococci or their type-specific polysaccharides, 321
Serologically reactive dextrans, formation by streptococci from subacute bacterial endocarditis, 147
Serum, homologous, jaundice, period of infectivity of patients and routes of infection, 441
Sex and dietary factors, influence on toxicity of carbon tetrachloride, 449
Skin grafts, activation, 383
Specific antibody suppressing growth of Brown-Pearce tumor cells, nature of reacting cell constituent, 227
— precipitates composed of blood group A substance from pools of hog stomachs and homologous human antibody, properties, 477
—, type-, polysaccharides, or pneumococci, antibody formation in volunteers after injection, 303
—, type-, polysaccharides, or pneumococci, mouse-protective titers of sera of volunteers after injection, 321
Stomach linings, hog, individual, properties of purified blood group A substances from, 485
Stomachs, hog, pools, properties of blood group A substance, and of specific precipitates composed of "A" substance and homologous human antibody, 477
Streptococci from subacute bacterial endocarditis, formation of serologically reactive dextrans by, 147
Sulfonamide chemotherapy of combined infection with influenza virus and bacteria, 505

TICK fever, Colorado, and dengue, immunological and clinical comparison, 295
— fever, Colorado, etiology, 1
Tissue culture, interference between viruses in, 195
— substance and pneumonia virus of mice, occurrence of combination between, 105
Tissues and body fluids in scrub typhus, soluble antigen in, 133
Toxicity, carbon tetrachloride, influence of dietary factors and sex, 449
Transmission, laboratory, of Japanese B encephalitis virus by seven species of North American mosquitoes, 185
Tubercle bacillus, factors affecting growth in liquid media, 409
Tumor cells, Brown-Pearce, growth, suppression by specific antibody, nature of reacting cell constituent, 227
Typhus, scrub, soluble antigen in tissues and body fluids, 133

VIRUS, encephalitis, Japanese B, laboratory transmission by seven species of North American mosquitoes, 185
—, encephalitis, St. Louis, in blood of fowls and mammals, 175
—, encephalomyelitis, equine, Western. in blood of chickens, 163
—, influenza, and bacteria, combined infection, sulfonamide chemotherapy, 505
—, influenza, PR8, highly purified, preparation from infected mouse lungs, 11
—, pneumonia, of mice, hemagglutination by, and occurrence of combination between virus and tissue substance, 105

Virus, pneumonia, of mice, immunological evidence of latent infection in mammalian species, 43
—, pneumonia, of mice, precision of *in vivo* measurements and antibodies against, 25
Viruses in tissue culture, interference between, 195
—, influenza, highly purified, and related materials, precipitin reactions, 281
—, influenza, Types A and B, complement fixation antigens, 259